

Conklin

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LITHÆMIA

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AS AN

859 ÆTIOLOGICAL FACTOR IN DISEASE,

AND THE USE OF

ALKALITHIA

IN THE TREATMENT OF THE SAME.

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THROUGHOUT the following pages the word Lithæmia is used in the broadest acceptation of the word; as a convenient term, in the absence of a better nosology, to cover that broad condition of feeble digestion, faulty assimilation, imperfect metabolism and insufficient renal elimination, which leads to an accumulation in the system of uric acid and the urates; the application of the term was first made by Murchison. It implies a diathesis, not a single disease.

Lithiasis, gouty diathesis and uric acid diathesis are synonymous terms. Uric acid as a pathological factor belongs to the group of nitrogenous toxins, and thus lithæmia may be defined as autointoxication. However, it should not be confounded with uræmia, which denotes a state of autointoxication from urea.

Lithæmia is uric acidæmia or uricæmia, though either term is too bungling to ever come into general use, and if it be borne in mind that lithic acid is another name for uric acid the word lithæmia, it will be seen, is equally comprehensive, and to be preferred.

Believing that the relationship between lithæmia and the list of diseases which the writer attributes to it as a common cause, will be more easily discerned as the late writings of Prof. A. Haig, of London, are more carefully studied, we take the liberty of

summarizing some of his recent provings for the benefit of those who haven't his work.

Being himself a sufferer from lithæmia his opportunities for observation have been unsurpassed, and when coupled with his exact methods of investigating the effects upon the human system of accumulations of uric acid, his deductions appeal to our intelligence for recognition as verified facts.

FIRST. He has demonstrated to a mathematical certainty that, the amount of uric acid formed in the system bears a direct relationship to the amount of proteid food consumed, destructive metabolism remaining unchanged.

SECOND. Under a condition of normal alkalescence of the blood this fluid conveys uric acid in a state of solution to the kidneys, where it is eliminated as fast as formed, this being nature's method of removal.

THIRD. Under conditions of diminished alkalinity of the blood, which less readily holds uric acid and its salts in solution, the only form favorable for elimination, this substance is precipitated out of the blood into tissues having a greater affinity for it, as the liver, spleen, cartilages of joints and fibrous tissue, which Sir A. Garrod has shown to more often contain appreciable quantities of uric acid, than other tissues of the body.

FOURTH. As the alkalescence of the blood is a constantly fluctuating factor, being influenced by every meal and numerous other causes, there are frequently recurring periods of uric acid retention, of variable duration, which retained or stored up uric acid is again carried into the general circulation whenever an incidental cause again increases the alkalescence of the blood to a point that will hold uric acid in solution, and once more it is on its way to the kidneys for elimination.

FIFTH. The precipitation of uric acid or urates into the fibrous tissue of joints constitutes true gout and when found elsewhere in fibrous tissue as in sheathes and intermuscular septa of muscles we get rheumatism.

SIXTH. I wish to call the attention of the reader to the uniform results which were shown to follow whenever carefully conducted quantitative estimations of the amount of uric acid passing the kidneys showed an abnormal amount circulating in the blood. In the first place it should be remembered that the amount of uric acid excreted was carefully estimated several

times a day, for weeks and months, and a careful record kept of the hæmic alkalinity as modified by animal, mixed and vegetable diets, sour wines, ale and beer.

It was found that, upon the ordinary mixed diet, there were periods of several hours or days duration in which there was a subnormal excretion of uric acid occurring simultaneously with a lowered alkalinity of the blood, and whenever the alkalinity of the blood was allowed to reach its normal point, there was a free output of uric acid again, many times greatly in excess of the normal daily average.

SEVENTH. Aside from proving the periodical retention of uric acid it was invariably observed that, whenever there was a periodical retention, at which times he argued it was *not* circulating in the blood, and thus being brought in contact with the nervous system, there was a condition of mental brilliancy, acuteness of intellect, and a general feeling of well-being, accompanied with a *full, soft pulse, and lowered arterial tension*, as shown by the sphygmograph. Conversely, an increasing alkalinity of the blood, by inviting the stored-up uric acid again into the circulation, as shown by the increasing amount in the urine, profoundly influenced the nervous system until the excess was gotten rid of, as manifested by mental depression, despondency, melancholia, irritability of temper, and, above all, a *small, hard pulse and increased arterial tension*.

The small, hard pulse, with increased arterial tension, shows a contraction of the systemic capillaries and peripheral arterioles which is brought about through stimulation of the vaso-motor centres in the medulla.

In short, we have but to apply the physiology of the sympathetic in its vaso-motor fibres to explain the whole philosophy of Prof. Haig's findings; and the reader is urged, throughout the pages which follow, to bear in mind the primary disturbance of the cerebral centres, with secondary perversion in vaso-motor innervation, which follow upon an abnormally large amount of uric acid circulating in the blood.

Uric acid is an irritant to the nerve centres, but not all people have nerve centres equally endowed with the quality of receptivity, and herein lies an explanation of the immunity of some people from lithæmic troubles, though circulating an amount of uric acid that would overpower others.

Uric acid may operate to set up a morbid condition in one of three ways, and for this reason we find a natural classification of lithæmic diseases into three groups: (1) Those representing a deposition of uric acid in cartilaginous and fibrous tissue, as gout and rheumatism. (2) Those conditions set up by uric acid as an excrementitious solid, in its passage along the urinary organs, as gravel, cystitis, Bright's disease, etc., these first two groups representing the local irritant action of uric acid. (3) Those diseases brought about through the medium of innervation and representing the indirect action of uric acid while circulating in the blood—the functional neuroses.

The development of a functional neurosis in a case of lithæmia depends upon the impressibility of the nerve centres, and from this we deduct the rule that, given an excess of uric acid in the blood, pathological results will follow in an inverse ratio to the power of resistance of the nervous system.

The American people as a race have, not untruthfully, been called "a nation of dyspeptics," and this factor (along with the fact that our overstimulating manner of living, and rapid methods of business, entailing unceasing care and worry in those often handicapped by an inheritance rich only in neuropathic tendency, have given us a nervous endowment rendering us peculiarly susceptible to all influences operating on the nervous system) leaves us doubly exposed to the invasion of lithæmic troubles.

In fact, we fear it may be recorded to the discredit of the American profession that the penetrating intellect of London's immortal practitioner, J. Milner Fothergill, saw more, clearly ten years ago the conditions surrounding us than we ourselves see them to-day, when, in delivering a lecture upon "The Neurotic with Indigestion and Lithiasis," he said, "The subject is one which must possess a high interest for American physicians, for the excellent reason that they must so constantly encounter it."

"O! wad some power the giftie gie us."

Morris H. Henry, M.A., M.D., LL.D., of New York, in a recent article upon gout, in speaking of the prevalence of that diathesis, says: "There can be no doubt that the errors in diet and the tendency to overeating in this country is leading to the development of gout in a large class of our population. It is now

a mere question of time when the gouty diathesis shall be manifested here as fully and as frequently as in other countries, where it has prevailed for centuries."

Dr. Meigs, of Philadelphia, says: "In a great majority of cases, where children worry without apparent reason, the origin of their distress is a lack of water to wash away the products of tissue change."

While other theories have not been found wanting, from the inception of medical literature to the present day, to account for the development of gout and its congener, rheumatism, yet I take it for granted that the consensus of opinion among medical men of to-day is that they are the most common manifestations of lithæmia; and with this simple statement of an accepted fact I will pass the discussion of their ætiology and pathology and take up their treatment with ALKALITHIA.

I think it will be admitted as an axiomatic truth that where the cause of a disease is known, the best treatment of that disease is to seek to remove the cause, if still operative; and, if the cause of gout and rheumatism be uric acid, clearly, then, the best treatment of these conditions is to remove from the system uric acid. If there is any more radical or effective method than by the use of the "alkaline treatment," I don't know of it.

A condition most favorable to the elimination of uric acid, is one of increased hæmic alkalinity, with diuresis.

An excellent remedy to induce this condition is "Alkalithia," a remedy which contains five grains of Carbonate of Lithia and ten grains each of Bicarbonate of Soda and Potash to each dram, or a total of twenty-five grains of alkali to each dose of a dram or heaping teaspoonful, in combination with Caffeine, which has been called by some of our therapeutists, "the ideal diuretic." Those who have given it a fair trial, combined as above in "Alkalithia," find it as effective in practice as it was held to be ideal in theory.

Common cases in the practice of every physician are those belonging to our second group of lithæmics, viz.: Those cases due to the irritative influence of uric acid upon the urinary organs. These patients complain of "lame back," "crick in the back," "kidney complaint," and "rheumatism of the back."

They have pain, soreness and tenderness across the loins and back of the hips and down the sciatics. They have a char-

acteristic pain extending diagonally from the kidneys through the body to the bladder. It is along the course of the ureters and is pathognomonic of the passage of urinary solids in a state of concentration, the intensity of the pain indicating the degree of condensation from urine with a high sp. gr., to gravel and calculus.

They squat, from preference, and bend over when they have to, for they straighten up with difficulty and by degrees. The body is carried slightly bent and the gait is slow, each step being taken with caution to avoid jarring the kidneys.

These patients pass a urine that is scanty, high colored, of high sp. gr. and which on cooling throws down a crystalline deposit. The picture is not overdrawn. It gives a correct view of inflamed kidneys and ureters from lithæmic urine.

Alkalithia is the best remedy for the above condition that we have ever tried. It increases the alkalinity while at the same time it augments the bulk of the urine, thereby holding the solids in solution and flushing them out of the body. *Such cases are cured by the use of Alkalithia.*

When the force of the urinary irritant is spent upon the bladder these patients suffer every degree of pain from the slight irritation that necessitates their rising at night to void their urine, to the misery of cystitis with vesical spasm. In every case of frequent urination with smarting, scalding, or burning of the neck of the bladder, urethra, the vulva in the female or the prepuce in the uncircumcised male, look carefully to the condition of the urine, and give "Alkalithia" with full assurance that your patient will be benefitted.

A urine containing a high percentage of uric acid means irritation of the neck of the bladder. Irritation of the neck of the bladder means frequent calls to urinate. Frequent calls to urinate occurring in a child that slumbers on midst dreams of waking gives us a case of enuresis. This frequent and unusual desire to pass water during the night, Prof. Dowling says may be the first symptom to attract the attention of the incipient lithæmic. These cases are benefitted at once by the use of "Alkalithia," which dissipates the cause. The alkaline treatment of bed-wetting in children is nothing new, having been mentioned by the writer in a paper read before the State Association nine years ago, at its meeting at Detroit.

The mother who stints such a child in the use of water, so it will not make so much urine, and possibly can hold its urine until morning, is but enforcing a fool's philosophy, for is not a lack of water to hold the solids in solution and wash them from the system, a cause of the irritating urine?

At the meeting of The Association of American Physicians in 1886, at Washington, D. C., Prof. James Tyson, of Philadelphia, opened a discussion upon the question: "Does the present state of our knowledge justify a clinical and pathological correlation of rheumatism, gout, diabetes and chronic Bright's disease?"

The question was ably discussed pro and con, the diseases were admitted to have pathological points in common, to be still more closely related clinically, and the belief was prevalent that the revelations of vital chemistry would, in time, lead us to view them as but so many manifestations of one and the same underlying systemic condition. Hear what J. Milner Fothergill says of uric acid influence in the causation of Bright's disease. In the course of a series of lectures delivered ten years ago, at his house in London, England, upon the subject of "The Modern Tendency of Disease," he says: "We have of late years been studying disease, rather than the individual, and the forces external and internal operating upon him. The battle of life now is fought with the brain, and the strain upon the nervous system leads to visceral derangements. The digestion is impaired. Meat is largely eaten by town dwellers, because it is easily digested in the stomach. The consequence is, the liver is overtaxed and reverts to the uric acid formation. This leads to changes in the vascular system and the kidneys, known as chronic Bright's disease. The effect of brain toil in the production of diseases connected with hepatic inadequacy, is seen in the prevalence at the present time of diabetes and chronic Bright's disease."

Again he says: "When the urine of an animal, possessing a four-chambered heart and a fluid urine, deposits, on cooling, a quantity of urates—the form of urinary excretion belonging to animals with a three-chambered heart and a solid urine—depend upon it, the kidneys will suffer sooner or later for this reversion on the part of the liver. Human kidneys are not constructed to excrete the comparatively insoluble urates, and if they have to do so for a continuous time, they become injured. If the urates are

formed in large or considerable quantity, one of two things must occur: (1) The kidneys are injured, or (2) The urates are retained in the system as gout. The first gives Bright's disease; the second, gout in some form. Often the condition is a blend of the two."

The direct testimony of one like J. Milner Fothergill, than whom probably no higher authority exists upon the subject of lithæmia, hailing from the land of gout and affirming in unequivocal terms the common parentage of gout, rheumatism, diabetes and Bright's disease, leaves little to be said by one who would repudiate the theory or attempt to disprove the facts.

My own experience in practice, since I first had my attention drawn to the lithæmic origin of diabetes and Bright's disease by reading Dr. Fothergill's strong language ten years ago, but confirms the teachings of this medical savant and teaches me furthermore that these diseases in their incipient stages may be permanently cured by such alkali remedies as Alkalithia.

Why does Alkalithia do so much for these diseases? Because the lithia and other alkalies in it neutralize uric acid and bear it out of the system and thus get rid of its direct irritating action upon the kidneys in setting up Bright's disease on the one hand, and its secondary or indirect action in disturbing vasomotor innervation and fostering diabetes on the other hand. Alkalithia is the remedy *par excellence* for the treatment of these diseases in their early stages:

Nervousness, Irritability of Temper, Emotional Insanity, Melancholia and Dementia.

I wish especially to call the attention of the profession to the use of Alkalithia in the treatment of the functional neuroses.

Although an entirely different line of treatment is usually thought of in managing these cases, yet if their lithæmic origin be borne in mind, this at once suggests the use of Alkalithia.

Referring again to the provings of Prof. Haig, as enumerated in our summary on page three, section seventh, it will be observed that whenever uric acid is accumulating in the system there is to be seen a condition of mental brilliancy, vivacity of spirits, acuteness of intellect, exalted energy, unusual endurance and a general feeling of well-being, and whenever this excess is passing away (at which time Prof. Haig argues it is being brought in contact with the nerve centres by being in the blood), there is

undue nervous tension. The patient then is irritable, snappish, sarcastic, easily annoyed, despondent, melancholy, has the blues, petty annoyances seem exasperating trials and ordinary daily duties become irksome tasks.

These patients suffer every degree of mental perversion from irritability of temper to emotional insanity; from the blues to dementia. These cases of nervousness constitute one of the most common phases of lithæmia, and such cases are completely cured by the proper and systematic use of Alkalithia.

At times this disturbance of the nervous system comprises all there is of the case, beyond the lithæmia, while in other cases this nervous condition, though nevertheless a significant feature, is obscured by some more conspicuous symptoms. Whatever the particular name may be that defines the diagnosis is immaterial, but one of the best remedies that I have ever used for the cure of all those cases of nervousness is Alkalithia. The relief is prompt and the cure complete by continuing the remedy for a short time.

INSOMNIA.

The same high nervous tension that begets nervousness and irritability often prevents a patient from sleeping, and nothing then acts with more curative effect than Alkalithia. I have seen most excellent results follow its administration in breaking up that condition of wakefulness that makes a nightly dose of some nectar as an offering to Morpheus a necessity.

IRREGULAR ACTION OF THE HEART.

This is another condition that supervenes upon perverted cerebro-spinal innervation growing out of lithæmia. In the absence of prominent gastric symptoms to account for the disturbed heart action, these cases are liable to be mistaken for organic disease, but an examination into the matter of renal elimination shows they are laboring under a state of uric acid intoxication, and alkaline treatment by Alkalithia in my hands has in a considerable number of cases, demonstrated that they get better rapidly as they get rid of uric acid. Alkalithia is a remedy for these cases that leaves nothing to be desired. It is to be relied upon, and if it is used rarely will any heart "regulator" be required. Think of Alkalithia, in your next case of irregular heart action, especially if there be a circumscribed area of soreness over the region of the heart.

NEURASTHENIA.

Passing now to the spinal neuroses we find that neurasthenia, or "Americanæmia" as it has not inappropriately been called, is a disease which in some cases tells of a lithæmic state.

Hammond calls it "spinal irritation," and defines it as posterior spinal anæmia, and further says: "Now that the function of the sympathetic nerve as regards its action in regulating the calibre of the blood vessels is so satisfactorily proven, we can partially understand how local congestions and anæmias may be superinduced. It is probable, therefore, that the original disturbance in many cases of spinal irritation resides in the sympathetic system."

The localized ischæmia is purely vaso-motor in origin, and grows out of the irritating influence of uric acid upon nerve centres. Though localized in the spine this is in its origin a vaso-motor neurosis. The writer has seen a few cases where the lithæmic phase of the case was very marked, and the use of alkaline treatment in these cases does more for them than anything else.

Where the systemic condition of lithæmia is present in neurasthenia, use Alkalithia in preference to any other remedy, and you will not be disappointed.

What is true of neurasthenia as a localized display of a perversion of vaso-motor innervation, is also true of

PROGRESSIVE LOCOMOTOR ATAXIA.

Each is a localized spinal ischæmia. The one is posterior, the other anterior. One deals with a sensory tract, the other with a motor tract.

I recall one case in particular of locomotor ataxia that developed in an obese lithæmic who had had a scanty, heavy urine for years. Alkalithia relieved him to a very great extent, but being in an advanced stage of the disease, he was not cured. If taken in its incipient stages, I believe Alkalithia will stay the development of ataxia.

HYSTERIA.

What is hysteria? It is a neurosis, and while it may grow out of uterine or ovarian troubles, the time is past when a condition of hysteria necessarily means a wrong of the female generative organs.

Hysteria is distorted innervation. It may come from any cause that shocks, depresses, over-stimulates or irritates the nervous system, either in the male or female.

It has been my experience to see a few well-marked cases of high nervous tension growing out of lithæmia, culminating in hysteria. To these cases Alkalithia is as near a specific as quinine is to ague.

CHOREA.

This is another disease that should be classed among the functional neuroses. It consists of a loss of the power of co-ordination of muscular movements. The centre which presides over this function is located at the base of the brain, in the medulla. Irritation of the medulla then by uric acid may cause choreic movements.

Van der Kolk thinks "the virus of chorea is so closely related to that of rheumatism that either form of the disease may be caused by it."

Germain See says, "Chorea is almost always of rheumatic origin," and Duckworth says, "Chorea is merely a manifestation of rheumatism."

Its association with rheumatism has been recognized for centuries. That the alkaline treatment will cure chorea, *I do know*, having cured a case in the spring of 1889 by acetate of potash alone. It being a case where the lithæmic diathesis was very pronounced, I began treatment by medicating the patient for the diathesis first, when the improvement in the choreic movements was so pronounced I concluded to make a test case of it, and see to what extent recuperation would follow upon a mere depurative plan of treatment.

My patient gradually regained control over his movements up to the point of complete restoration of co-ordination. No other remedy than acetate of potash was used. Bear in mind that your choreic patient is more than likely a lithæmic patient, and if so, you can find nothing that will relieve more effectually or scientifically than Alkalithia.

Nine years ago in writing of uric acid the author spoke of the characteristic headache of lithæmia as being low down in the base of the brain, and producing a desire to draw the head over back. This headache is in that portion of the brain which presides over the functions of animal life. It is irritation of the

medulla and basilar brain, and because this portion of the brain contains the centres of animal life it will be readily seen why lithæmia originates so many of the neuroses which show a perversion of the functions of animal life.

ENURESIS.

Though I have shown how this condition may come from the local irritant action of uric acid upon the bladder, yet it may develop as a neurosis.

Harkin's theory of enuresis is that it comes from irritation of the medulla, and he claims to cure all cases by applying a blister to the nucha. If irritation of the medulla will cause enuresis, then it becomes a neurosis, and the influence of uric acid upon the medulla may produce it. I have applied Dr. Harkin's treatment in but one case, and while the results were good, I cannot now say if it was a lithæmic, but Alkalithia will cure some cases of enuresis, as I have previously pointed out.

Whether it is by relieving the medulla or the bladder, or both, I will not pretend to say.

EPILEPSY.

All agree in calling epilepsy a neurosis. There is not a uniformity of opinion, however, as to whether it be functional or organic.

Reynolds, of London, pointed out among the pathological conditions fairly well established, that the seat of the primary derangement is the medulla, and consists of "an increased and perverted readiness of action in the part, the result of such action being the induction of spasm in the contractile fibres of vessels supplying the brain."

Nothnagel tells us that the centre for consciousness is in the medulla and that for the muscular system in the pons, and thus accounts for loss of either function independent of the other.

Echiverria, confirming the conclusions of Schroeder von der Kolk, has shown the lesions in the medulla to be constant changes in epilepsy.

Among those who have carried on pathological experiments in the study of epilepsy, Kusmall and Tenner have shown that irritation of the medulla, which is known to be the origin of the great sympathetic, gives rise to spasm of the cerebral vessels, with consequent anæmia, and that anæmia of the brain causes

loss of consciousness and convulsions. These opinions are held by Althaus and Brown-Séquard. From these provings they draw the conclusion that the medulla is the seat of epilepsy.

If, then, the phenomena we call epilepsy may come from localized cerebral anæmia—ischæmia—why may not a disturbance of vaso-motor innervation originate it? Uric acid will furnish the disturbance. Hammond calls attention to the fact that “continued and excessive indulgence in animal food is likely to predispose to the disease in some persons.”

Portal has recorded several cases where persons became epileptic after gluttonous indulgence in beans.

Haig's urine analyses in cases of epilepsy showed a diminished excretion of uric acid for several days prior to an attack and a greatly increased excretion during and following an attack.

Here we have a picture of a storing up of uric acid before an attack and its circulation in the blood during the pathological display we call epilepsy.

Bearing in mind Haig's observations upon uric acid and increased arterial tension, is it not natural that Broadbent and others should write of the merits of a farinaceous diet, and the former should even have differentiated so closely between his cases as to find most marked benefit in those showing the greatest increase in arterial tension?

A further fact which argues the functional nature of epilepsy is the complete absence of any pathological lesions in a large percentage of cases that have come to an autopsy, and such changes as have been found may fairly be considered as secondary trophic changes from primary disturbance in the vascular system.

ABSENCE EPILEPSY.

In this disease Bartholow tells us that “there is nothing of a pathological nature noticed about the patient during the moment of absence of ideation but a pallor of the face and dilatation of the pupil.”

ECSTATIC EPILEPSY.

In this disease the same author teaches that there is a death-like pallor of the face and a small pulse.

These symptoms seem to place beyond doubt the involvement of the sympathetic in epilepsy, and the use of Alkalithia

which will remove the cause of irritation to the sympathetic in cases marked by lithæmia, is scientific treatment, for it is the ideal treatment for lithæmia.

ANGINA PECTORIS.

Two classes of opinions are held to by medical writers as to the precise nature of angina; one being that it is a purely functional disease, the other that every case is the expression of structural change in the heart. Douglas Powell, of London, considers all cases of angina of vaso-motor origin, and believes that the heart may succumb to an anginal attack without leaving any trace of structural change. In angina gravior, where changes are found in the coronary arteries and other parts of the heart, they are interpreted as no essential part of the angina.

Bartholow believes there are usually present arteritis and calcification of the coronary arteries, but that these changes are "purely accidental." Quain, of London, sees in "the lithic acid or gouty diathesis" an efficient cause of angina.

Irving C. Roose stands squarely upon the theory of vaso-motor perversion originating in the lithic acid diathesis. German writers are largely unanimous in assigning it to the gouty diathesis. The symptomatology of an attack of angina is a clear picture of a vaso-motor neurosis, with contraction of the peripheral capillaries, and I think it may be said that T. Lauder Brunton is nearest to the truth when he compares the pain of angina pectoris to the pain of overdistention of the bladder in urinary retention. I cannot better express his idea than by using his own language: "Angina pectoris might be said to be due neither to high tension alone, nor to weak heart alone, but to weakness of the heart in relation to the resistance it had to overcome, and it might be brought on by weakening the heart, or by increasing the resistance, or both." He recognizes the necessity of a restricted diet in gouty cases and an elimination of the products of waste to effect a cure.

Placing the ætiology of angina in vaso-motor spasm, we see how fully Lauder Brunton's theory of the mechanism of an attack of angina explains all the symptoms. The opposing force of arterial spasm impedes the peripheral circulation, driving back upon the heart a volume of blood that temporarily overpowers it and fills its cavities to overdistension. Most intense strain is put

upon every part, and as Quain has shown, rupture of its walls sometimes occurs, and as Brunton has shown, overdistension is synonymous with pain.

The unusual intracardiac pressure would cause endocarditis, and in the coronary arteries endoarteritis and secondary calcareous degeneration found in so many cases, which are the effects of angina, not the cause.

The author has had one case which clearly demonstrated that lithæmia may originate angina. A little girl of ten years, born of a rheumatic father, with a personal history of chronic tonsillitis, cystitis, rheumatism and a fluctuating urine, was seized with angina pectoris. Glonoin, which is known to relax the circular fibres of blood vessels, gave speedy relief. Inquiry elicited the fact that for two days prior to the attack the urine had been "as clear as well water," and an examination of some of it gave a sp. gr. of 1.002, showing almost no elimination of solid matter. This patient was put upon Alkalithia to restore renal elimination. It was continued at intervals for a few weeks with the result of curing her of tonsillitis, cystitis, rheumatism and angina, and giving her a better condition of health than she had had for years.

Look for a lithæmic cause in the next case of angina, and try Alkalithia.

DERMATITES.

That lithæmia should originate this class of cases is most natural, if we stop to think how vaso-motor innervation has to do with nutrition.

Our best dermatologists now speak of the dermatites as neuroses.

All such cases of skin disease as are marked by a dry, wrinkled, shrunken, parchment-like condition of the skin, accompanied by exfoliation, whether merely furfuraceous or in large pearly scales; the hair being dry, uneven, thin and shedding; the nails dry, horny, thick and brittle—cases showing poor nutrition—should be viewed in the light of nutritive changes due to a primary disturbance in vaso-motor innervation.

Alkalithia is a sovereign remedy in the treatment of such cases, and I recall one case in particular of psoriasis that was rapidly cured by Alkalithia which had received but little benefit at the hands of several physicians including the writer, until my

attention was drawn to the defective renal elimination which pointed to the ætiology of the case.

Bear in mind that the dermatites may be neuroses of lithæmic origin, and that Alkalithia will remove the cause.

In conclusion I wish to call attention to the practical clinical virtues of the combination of the alkalies with caffeine called "Alkalithia" in comparison with any and all other alkalies.

Having decided that you have a case of lithæmia and wish to use the alkaline treatment, your choice should be Alkalithia for the following reasons: (1) Being made by Keasbey & Mattison Company you are guaranteed a perfectly pure and carefully prepared product. (2) Being effervescent it is pleasant to take and the carbonic acid gas liberated during effervescence causes it to agree with even the most sensitive stomach that would rebel against any and all other alkalies. (3) If the alkaline treatment is indicated we believe that the sooner the system is saturated with an alkali the better, and we know of no method by which twenty-five-grain doses of an alkali, as contained in a dose of Alkalithia, can be taken with such freedom from unpleasant after-effects as by the use of Alkalithia. (4) The use of Alkalithia insures the patient getting a liberal amount of water, which is necessary if you would have free urination; without which you can not flush the solids out of the system even should you neutralize them by the liberal use of alkalies in more concentrated form. (5) By combining the alkalies in Alkalithia with caffeine we augment the bulk of the urine at the same time we neutralize its solids and thereby flush the kidneys and wash the solids out of the system, caffeine being the ideal diuretic that dilates the renal capillaries at the same time that it strengthens the heart and increases the blood pressure.



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